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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/734,733	12/12/2003	Irene Glozman	B04.12-0074	9584

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EXAMINER	
EASTHOM, KARL D	

ART UNIT	PAPER NUMBER
2832	

DATE MAILED: 04/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/734,733	GLOZMAN ET AL.	
	Examiner	Art Unit	
	Karl D. Easthom	2832	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 March 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-17 and 19* is/are rejected.

7)☒ Claim(s) *2 and 18* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 13 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is not clear how the first section can provide the sole support for the resistor section, since applicant claims in claim 1 that the potting material provides rigid support for the first section. That is, if the potting material provides support for the first section, and the first section provides support for the resistor, then the potting material must provide support for the resistor.

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 3 and 14 are rejected under 35 U.S.C. 102(b) as anticipated by Hayashi. Hayashi discloses the claimed invention at Fig. 1 with bore 4,5 in housing 3, temperature sensing assembly 38, with resistance temperature sensing element 6, 7,8,9, mandrel 13, rigid potting material 11, and particulate material 12 in the bore 4, 5. In claim 3, the particulate is alumina (aluminum oxide). In claim 14, the inner end surface of the bore is at end 2, with the end surface of the mandrel 13 spaced therefrom and separate insulating material 10 filling the space there between.

5. Claims 1, 9, and 12-13 are rejected under 35 U.S.C. 102(b) as anticipated by Takahashi et al. Takahashi discloses the claimed invention at Fig. 1 with bore in housing 60, temperature

sensing assembly 38, with resistance temperature sensing element 11, mandrel 13 30, rigid potting material 70, and particulate material 50. In claim 9, the end cap is 70 and is adjacent the shoulder forming the bore portions where 50 and 22 meet inside the bore where adjacent means close. The rigid potting material or end cap 70 is for retaining the material 22 in the first bore portion by aiding in preventing spilling as noted at par. 15. In claims 12-13, the first portion is 13 with the second portion 30.

6. Claims 1, 3 , 12-17, and 19 are rejected under 35 U.S.C. 102(b) as anticipated by Berger et al. Berger discloses the claimed invention at Fig. 2 with bore in housing 15, temperature sensing assembly 22, 25, 22 resistance temperature sensing element 25, mandrel 22 having two sections, the second section in rigid potting material 16,17, and particulate material 30 around the first section. In claim 3, the particulate is magnesia. In claim 12, the first section near 29 is cantilevered as related to second section near 17. In claim 13, mandrel 22 provides the sole support. In claim 14, the inner end surface a the end of 25 near the right hand end has separate insulating material 30, that is separate from other material 30 near the other end. In claim 16, the resistance wire is wound over only the first section of the mandrel. In claim 17, the two sections are coaxial since they share the same common axis. For claim 15, The closed end is closed by the other closing section 16. In claim 19, the particulate material is the only material.

7. Claim 6 is rejected under 35 U.S.C. 103(a) as obvious over Berger et al. in view of O'Connell et al. Berger discloses the claimed invention as noted above except the epoxy material. O'Connell discloses such a material 39 for sealing wires in a bore, so that it would have been obvious to so seal the Berger wire 23 where Berger discloses a sealing cement or sealing silicone rubber type plug at col. 3, lines 45-60 or col. 7, lines 5-10 for sealing a wire to

within a bore. bore 48 in housing 32, temperatures sensing assembly 38, with resistance temperature sensing element 38. The second section of the mandrel 44 protrudes into the section 46 where the rigid potting material of cement resides as noted at col. 6, lines 49-65.

8. Claim 7 is rejected under 35 U.S.C. 103(a) as obvious over Berger in view of Kolb et al. Berger discloses the claimed invention as noted above except the platinum material. Kolb discloses at col. 1, lines 30-40 the material is well known for use as a high temperature detector and having similar wire shape as that of Berger so that such a material would have been obvious.

9. Claims 4, 5 and 8 are rejected under 35 U.S.C. 103(a) as obvious over Hayashi, or Berger in view of Hayashi. Berger or Hayashi disclose the claimed invention as noted above except the size of the particles. Hayashi discloses employing particles small enough to ensure that the particles get in-between coils of a sensor, and also to ensure that particles are evenly packed, at col. 1, lines 30-50, citing particles having a range for 30-150um at col. 2, so that it would have been obvious to make the particles even smaller to ensure that material is evenly packed, since smaller particles will pack more evenly than larger ones as suggested.

10. Claims 10-11 are rejected under 35 U.S.C. 103(a) as obvious over Takahashi et al. or Berger in view of Nyffenegger. Takahashi discloses the claimed invention as noted above except the housing material of aluminum. Nyffenegger at col. 1, and col. 2, lines 20-36 discloses that aluminum is a suitable thermally conductive housing for temperature detectors where quick response times are desired, so that same would have been obvious for that reason. Since the mandrel of Takahashi is of platinum rhodium as noted at par. 26, and the metal housing as modified is aluminum as obvious, then claim 10 is met since the same materials are employed.

Similar remarks apply to Berger where the housing is made of metal for conduction, see Fig. 4, for example.

11. Claims 1, 15-17, and 19 are rejected under 35 U.S.C. 103(a) as obvious over Berger el al. Berger discloses the claimed invention at Fig. 4, substantially as noted above, with bore in housing 15, temperature sensing assembly 22, 24, 25 resistance temperature sensing element 25, mandrel 22 having two sections, and what appears to be particulate material similar to the particulate material 30 in Fig. 2, around the first section. Berger does not disclose the second section of the mandrel in rigid potting material in Fig. 4, but does disclose such a material 16,17 to hold the particulate material 30 in place and generally to support the mandrel 22, so that such a rigid material would have been obvious for that purpose. In claim 3, the particulate is magnesia. In claims 15-17, the closed end is the weld 44. In claim 16, the resistance wire is 24. In claim 19, see the material 30 is the only material. Where the material 30 is not in Fig. 4, it would have been obvious where it looks the same and serves the same purpose of protecting the sensing element, as noted at col. 1, lines 45-67.

12. Claims 2 and 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Primarily, the larger diameter as claimed in the claimed combination is not disclosed or suggested.

13. Applicant's arguments filed 3/7/2005 have been fully considered but they are not persuasive. Applicant argues there is no single bore in Hayashi. This is not material to the claim. Applicant states 13 is not a mandrel, but provides no reason. That the element is

coiled is of no relevance to the claim. That the particulate matter does not support is not correct. If applicant's supports, so does that of Hayashi.

14. Applicant argues that 22 in Berger et al. is not a mandrel because it is in the circuit. This is not correct since a mandrel is simply a metal core, see e.g. Websters'II, New Riverside University Dictionary (1994) (A metal core around which material, such as wood, can be cast and shaped). There is no question that the wire is shaped around the metal core 22. Applicant argues that the sensing element 25 is not supported by core 22, because 29 is. But 29 is connected to 25, so that ultimately, the core supports it. Applicant argues there is no rigid potting material. This is not correct, 17, is rigid, as glass frit, or silicone, see col. 3, lines 45-60, or hard ceramic material, col. 6, lines 65-68. It is also noted that applicant claims that "a rigid potting material ...to form a rigid support in the housing for both the first and second sections". But the rigid potting material does not touch the first section. Applicant attempts to have it both ways, arguing the mandrel that does not touch the sensor in Berger does not support the sensor, while claiming that his potting material supports a section it does not touch, the second section of the mandrel.

15. As to Takahashi, applicant states that there is an intervening tube called a metal case 40 that precludes support by the rigid potting material 70 and particulate material 50. This is not correct, that the case is present does not preclude the support. A wall supports a roof, including shingles, but joists in-between do not preclude that support of the wall. There is no claim for a cantilever and cushion, etc., as argued. The leads are the mandrel and the sensing element surrounds same, where par. 44 discloses they are embedded in the sensor.

16. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karl D Easthom whose telephone number is (571) 272-1989. The examiner can normally be reached on M-Th, 5:30AM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Elvin Enad can be reached on (571) 272-1990. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Karl D Easthom
Primary Examiner
Art Unit 2832

KDE